CLAIMS

We claim:

1. A method of increasing the yield of an aromatic carboxylic acid from a host cell producing said aromatic carboxylic acid comprising:

a) providing a host cell which:

i) produces an aromatic carboxylic acid; and

ii) comprises at least one *yhcQ* gene and at least one *yhcP* gene; and

b) up-regulating the expression of the at least one *yhcQ* gene and the at least one *yhcP* gene whereby the yield of aromatic carboxylic acid is increased.

2. A method for increasing the resistance of a host cell to aromatic carboxylic acids comprising:

a) providing a host cell which comprises at least one *yhcQ* gene and at least one *yhcP* gene; and

b) up-regulating the expression of the at least one *yhcQ* gene and the at least one *yhcP* gene whereby the host cell resistance to aromatic carboxylic acids is increased.

3. A method according to either Claim 1 or Claim 2 wherein the at least one *yhcQ* gene and the at least one *yhcP* gene are endogenous to said host cell.

4. A method according to either Claim 1 or Claim 2 wherein the at least one *yhcQ* gene and the at least one *yhcP* gene are heterologous to said host cell.

5. A method according to either Claim 1 or Claim 2 wherein the host cell is selected from the group consisting of bacteria, yeast, fungi and plants.

6. A method according to Claim 5 wherein the host cell is an enteric bacteria.

7. A method according to claim 5 wherein the host cell is selected from the group of genera consisting of *Escherichia*, *Salmonella*, *Bacillus*, *Acinetobacter*, *Streptomyces*, *Methylobacter*, *Rhodococcus*, *Corynebacterium, Pseudomonas*, *Rhodobacter*, and *Synechocystis.*

8. A method according to either Claim 1 or Claim 2 wherein the aromatic carboxylic acid is selected from the group consisting of of para-hydroxybenzoic acid, para-hydroxycinnamic acid, cinnamic acid, salicylic acid, benzoic acid, and 1-napthoic acid.

9. A method according to either Claim 1 or Claim 2 wherein the at least one *yhcQ* gene and the at least one *yhcP* gene comprise at least one suitable promoter operably linked to at least one isolated nucleic acid molecule selected from the group consisting of SEQ ID NO:1 – 4.

10. A method according to either Claim 1 or Claim 2 wherein the at least one *yhcP* gene comprises a suitable promoter operably linked to an isolated nucleic acid molecule encoding the amino acid sequence as set forth in SEQ ID NO:5.

11. A method according to either Claim 1 or Claim 2 wherein the at least one *yhcQ* gene and the at least one *yhcP* gene are expressed on a multicopy plasmid.

12. A method according to either Claim 1 or Claim 2 wherein the at least one *yhcQ* gene and the at least one *yhcP* gene are under the control of a strong promoter.

13. A method according to Claim 12 wherein the strong promoter is selected from the group consisting of *lac, trp,* IP_L, IP_R, *T7, tac,* and *trc.*

14. A chimeric gene encoding an efflux protein comprising:

a) an isolated nucleic acid molecule having a nucleic acid sequence selected from the group consisting of:

i) an isolated nucleic acid molecule selected from the group consisting of SEQ ID NO:1-4; and

ii) an isolated nucleic acid molecule, wherein said isolated nucleic acid molecule hybridizes with (i) under the following

conditions: 0.1×SSC, 0.1% SDS at 65°C and washed with 2×SSC, 0.1% SDS followed by a second wash in 0.2×SSC, 0.1% SDS; and

b) a promoter;

wherein the promoter is heterologous to the isolated nucleic acid molecule.